

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



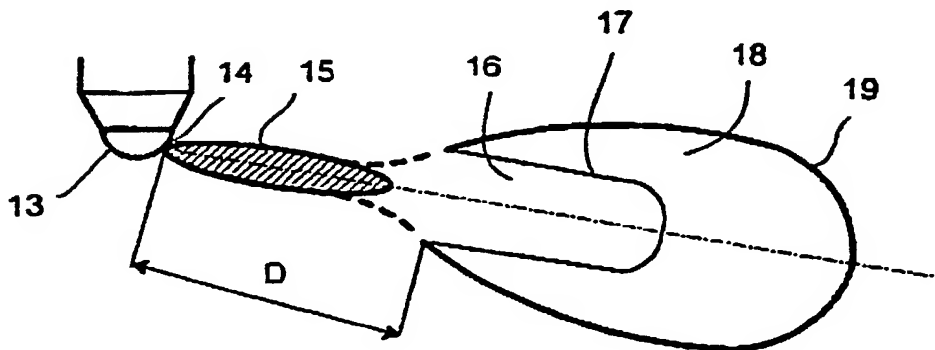
(43) International Publication Date
5 April 2001 (05.04.2001)

PCT

(10) International Publication Number
WO 01/23718 A1

- (51) International Patent Classification⁷: F02B 3/00 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (21) International Application Number: PCT/SE00/01893
- (22) International Filing Date:
29 September 2000 (29.09.2000)
- (25) Filing Language: Swedish
- (26) Publication Language: English
- (30) Priority Data:
9903525-5 29 September 1999 (29.09.1999) SE
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except US*): AB VOLVO [SE/SE]; S-405 08 Göteborg (SE).
- Published:**
— With international search report.
— Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.
- (72) Inventors; and
(75) Inventors/Applicants (*for US only*): HÖGLUND, Anders [SE/SE]; Kornvägen 27, S-430 33 Fjärås (SE). SÄRNBRATT, Ulla [SE/SE]; Vågländsgatan 36, S-421 33 Göteborg (SE). MAGNUSSON, Ingemar [SE/SE]; Hökegårdsgatan 2a, S-431 38 Mölndal (SE). EISMARK, Jan [SE/SE]; Silverkällegatan 4, S-414 72 Göteborg (SE).
- (74) Agents: BERG, S., A. et al.; Albihns Patentbyrå Stockholm AB, P.O. Box 5581, S-114 85 Stockholm (SE).

(54) Title: METHOD FOR CONTROLLING A COMBUSTION PROCESS IN A COMBUSTION ENGINE



(57) Abstract: Invention which, by means of spray-controlled, directly injected combustion with the aid of step-by-step technical development of the whole of the combustion system, achieves an intensified mixing process during injection and after-burning, which speeds up soot oxidation during various stages so effectively that the engine can be run with sufficiently high EGR content for desired NO_x and soot content down to ultra-low emissions, at the same time as parameters which control the efficiency are decoupled from measures for desired emission level, thereby enabling optimum efficiency to be attained for the process.

WO 01/23718 A1